STATE OF INDIANA)
) SS:
COUNTY OF MARION)

IN THE SUPERIOR COURT OF MARION COUNTY

YVONNE ROGERS, Individually)
and as Executrix of the Estate)
of Richard Rogers, Deceased,)
)
Plaintiffs,)
)
-vs-) CAUSE NO.
) 49D02-9301-CT-0008
R. J. REYNOLDS TOBACCO CO.,)
et al.,)
)
Defendants.)

REPORTER'S TRANSCRIPT OF PROCEEDINGS

BEFORE: HON. KENNETH H. JOHNSON, JUDGE

VOLUME I
February 10, 1995
Morning Session

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(WITNESS - ALAN SANDLER, M.D.)

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(At 9:17 a.m., Friday, February 10, 1995, the trial proceedings reconvened, the Honorable Kenneth H. Johnson presiding.)

(Out of the presence of the jury.)

MR. SHEFFLER: Your Honor, we have one issue we would raise to the Court.

Last night after we got the Court's ruling on our objections to cumulative testimony of Dr. Sandler, we reviewed his testimony and his deposition to see what, indeed, this witness could talk about in this case, and it occurred to us there may be an issue that may be raised we have very strenuous objections to.

At the deposition of Dr. Sandler, as a footnote at the end of the deposition, he kind of volunteered that there was a curiosity that he observed in some of his patients when they came to him with cancer of the lung.

He said that many of these patients have quit immediately before coming to him, quit smoking. He didn't claim that he knew any justification, scientific reason for this. In fact, he denied that he could explain why this

occurred, and Mr. Klapper at the time vigorously objected to any question on this issue.

THE COURT: On the issue of what now?

MR. SHEFFLER: Of why people quit smoking --

THE COURT: Before they came to him?

MR. SHEFFLER: -- immediately upon the diagnosis of lung cancer and what have you. Dr. Sandler was trying to suggest many times people quit smoking because of a cancer that they suspected.

But we have specific objections to that testimony in this case. No. 1 --

MR. KLAPPER: We can shortcut that, your Honor, I'm not going to ask him about that.

MR. SHEFFLER: Thank you.

MR. HARDY: Your Honor, one other matter, I'm sorry to bother the Court with this, but I can't seem to reach an

accommodation with Mr. Klapper. I would prefer, I think all the defense counsel would prefer not to have to pull this podium out and ask Mrs. Rogers to move every time in front of the jury before we do cross-examination. I understand Mr. Klapper does not want the podium standing up here in front of him while he's conducting a direct.

I wonder if we could just lay it down below the table level here while the direct is going on so that we can stand it up and do a cross-examination without having to ask people to move in front of the jury.

MR. KLAPPER: I don't mind if it's laying down, out of the way, and nobody is tripping over it. I just don't want to be blocked or my client to be blocked while questioning.

THE COURT: There's no problem with that. Do you want to do that now?

MR. HARDY: Yes, please.

MR. SHEFFLER: Your Honor, just so I'm clear, there won't be any testimony from

Dr. Sandler, volunteered or otherwise, that from some reason Mr. Rogers suspected he had cancer or quit smoking because of his cancer. As I understand, the plaintiff's counsel is not going to ask for that and the witness is not going to volunteer that?

THE COURT: That's what Mr. Klapper --

MR. KLAPPER: I'm not going to ask him, I can say that. I can't tell you every word that's going to come out of the witness's mouth, but I do not plan to ask him about that again. Maybe on cross-examination if they trip and it comes out, that's their problem, but I'm not going to ask about it.

MR. SHEFFLER: Well, can we have the witness instructed that he is not to volunteer that information?

THE COURT: Show me the deposition. I didn't -- I just don't recall it from the end of the deposition.

MR. SHEFFLER: Your Honor, it goes on for a number of pages, your Honor.

THE COURT: Right here?

MR. SHEFFLER: Uh-huh.

MR. KLAPPER: What page did you turn to, sir?

THE COURT: Page 217, line 16.

MR. KLAPPER: Thank you.

THE COURT: What it seems the defendants are asking is essentially a motion in limine as to this witness about certain information.

Mr. Sheffler, are you able to express it if it were -- you're asking that the witness be admonished, counsel has already indicated he does not specifically intend to inquire. What you're saying as well, I don't want the witness to volunteer information on this topic, so I would interpret it as a verbal motion in limine requesting the witness be admonished not to volunteer information, and help me word it from there, would you?

MR. SHEFFLER: Your Honor, I would make a motion that the witness be instructed not to volunteer information with

respect to patients who have suspicion of cancer, lung cancer, and quit smoking as the result. That motivation for stopping smoking is a suspicion or a presence of cancer.

THE COURT: That is, the motivation to stop smoking is either the diagnosis or a suspicion that a patient may have cancer?

MR. SHEFFLER: Right.

THE COURT: Am I close? Okay. Well, I assume if you don't intend to ask about it, you have no objections that the witness doesn't testify about it.

MR. KLAPPER: No, I have none.

MR. SHEFFLER: Thank you, your Honor.

THE COURT: All we need to do is, I guess, inform Dr. Sandler. Would you ask Dr. Sandler to step in? As a matter of fact, would you have any objection if he's sitting at the witness stand when the jury comes in?

MR. KLAPPER: Not a bit.

THE COURT: Okay. Why don't you

come in and let him do that and you can hear me admonish him, so if I don't get it right, you correct me.

MR. KLAPPER: Thank you, your Honor.

THE COURT: These nights get shorter and shorter, don't they? Holy cow. I thought my alarm clock was lying to me. Surely not.

Off the record.

(Off the record discussion.)

MR. KLAPPER: This is Dr. Alan Sandler.

THE COURT: Dr. Sandler, would you come on over and take the witness stand? The purpose -- you can go ahead and sit down right now, yes, sir. The purpose of our bringing you in at this time is to -- is just to inform you that there has been a motion, we call it a motion in limine, but it's a motion to exclude certain evidence, and it's made outside the hearing of the jury so we can talk about issues of law.

There has been a request that you not volunteer any information about patients who have stopped smoking motivated by their suspicion that they may have lung cancer. It was a topic that was discussed late in your deposition, if you've had a chance to refer to your deposition testimony or review it prior to your testimony. Does that make sense to you?

THE WITNESS: Sure, I understand.

THE COURT: You understand what that is? Okay. Mr. Klapper has indicated to the Court and counsel that that was not a topic he intended to discuss with you today. But, obviously, it is a matter that we're requesting that you not volunteer as well. And it may or may not fit as an answer to other questions, but unless it's asked you directly or until there's been a relaxation, we've all agreed that you're not to volunteer testimony in that regard. Make sense?

THE WITNESS: Sure does.

THE COURT: Thank you. What we're going to do is the bailiff is going to

bring the jury in in a moment and he'll have everyone rise and then I'll have the jury sit down and if you'll just remain standing, then I'll give you the oath right from there. You'll be seated, we'll go from there. Okay? Thank you, appreciate your cooperation.

Anything else we need to do before we bring the jury in?

Bring the jury in, please.

(The jury was escorted into the courtroom at 9:28 a.m.)

THE COURT: The jury may be seated. Well, good morning. Are you all okay?

Let me ask for the record, plaintiff, will you call your next witness, please?

MR. KLAPPER: Yes, sir, we call Dr. Alan Sandler.

ALAN SANDLER, M.D.,

a witness called on behalf of the plaintiff, having been duly sworn to tell the truth, the whole truth and nothing but the truth relating to said matter, was examined and testified as follows:

THE COURT: Thank you. Please be seated.

DIRECT EXAMINATION,

QUESTIONS BY MR. MORRIS L. KLAPPER:

Q Would you, please, state your name, sir.

A Alan Sandler.

Q Where do you live?

A At [DELETED]

Q Are you a married man?

A Yes.

Q What does your family consist of?

A A wife and two children.

Q What is your profession?

A Medical oncologist.

Q Is that a medical doctor?

A I'm a physician specializing in the treatment of cancer patients.

Q Would you tell the jury what is meant by medical oncology.

A Again, internal medicine with a specialty in the treatment of cancer patients, specifically using chemotherapy.

Q Where did you attend college as an undergraduate?
A Two years at Miami University in Oxford, Ohio, and then transferred to the University of Toledo where I obtained a bachelor's degree in pharmacy.
Q In pharmacy, sir?
A Yes.
Q What did you do after you graduated from school?
A I worked as a supervisor of the inpatient pharmacy service at the University of Chicago. For three years.
Q Were you in school at the same time?
A No.
Q What did you do next by way of education?
A I attended medical school at Rush Medical School in Chicago.
Q What were you taking? What course work or what degree were you seeking at that time?
A Medical degree.
Q Would you just chronicle your education from that point forward.

A Yes. After completing my studies at Rush, which would have been in 1987, I underwent -- or was at Yale for an internal medicine residency and also attended Yale for my fellowship in medical oncology.

Q Would you describe what your residency consisted of or your internship and residency together?

A Right. The internship was the first year, residency was the year after. That was taking care of patients on an internal medicine service.

Q Does that include patients with cancer?

A Yes.

Q Did it include patients with lung cancer?

A Yes.

Q And the fellowship that you did, how many fellowships did you have?

A One fellowship for three years at Yale in medical oncology specifically. So that was the treatment of specifically cancer patients.

Q Over what years did that take place?

A I was at Yale for five years from '87 to '92,

June of '92.

Q Would you tell the jury what a fellowship is.

A A fellowship is for physicians upon completing a general, either medicine or surgery rotation, my case medicine, then a specialization in some more specific field in medicine, in my case oncology.

Q Over what period of time have you been taking care of cancer patients solely?

A Since the fellowship began, so it would be approaching six years now.

Q Would you tell the jury what the difference is between medical oncology as opposed to just simply oncology.

A I suppose oncology in the most broad sense would be the care of cancer patients. Cancer is an area that typically uses many specialties. Medical oncology, such as myself, would be using typically chemotherapy, radiation. Oncology involves radiation. Surgical oncologists would, of course, involve the use of surgery.

Q Do you teach the subject of oncology?

A Yes. Since leaving Yale, I've been at Indiana University where I'm on faculty and I have -- I'm an assistant professor of medicine, so I teach medical students, house officers, interns, residents, as well as fellows.

Q Do you have any academic appointments?

A Yes. I am the assistant professor of medicine at Indiana University.

Q Do you direct any divisions?

A I am the medical director of the thoracic oncology program, which is the clinic where I see all lung cancer patients at Indiana University.

Q Would you tell the jury what thoracic oncology is.

A Thoracic oncology involves malignancies or cancers of the thorax, of the chest. The most common, of course, being lung cancer, but esophageal cancer of the food pipe would be another common one.

Q Do you have any special interest in any particular field involving lung cancer?

A Well, I have specifically written studies

involving the treatment of small cell lung cancer and have papers published on that, as well as papers involving general review of lung cancer involved with studies with nonsmall cell lung cancer as well.

Q Do you peer review articles?

A Yes.

Q Would you tell the jury what it means to peer review articles.

A In medicine, when a clinical trial or any, actually, type of research is conducted, either basic research in laboratories, or clinical research conducted on patients, the results are to be published and then submitted to various journals. These are then reviewed or refereed by two to three physicians in the field for their possible acceptance. And then, of course, once they're in the journal, then they're available for review by all other physicians who read the literature.

Q Are these articles submitted to you by other physicians for review?

A Yes.

Q What exactly do you decide?
A Whether or not it's acceptable to be published in that particular journal.
Q Do you make decisions as to whether or not these articles that are submitted to you contain sufficient information or sufficient background to be published?
MR. SHEFFLER: Objection, your Honor. I think we're getting a little repetitious here.
MR. KLAPPER: All right. Let me withdraw that, I'm sorry.
Q Have you, in fact, peer reviewed articles that have appeared in publications?
A Yes.
Q When did you receive your academic appointment at I.U.?
A Would have been in the summer of '92.
Q Are you still a teacher there?
A Yes.
Q At what hospitals do you have staff privileges?
A Indiana University, Wishard, the V.A, and also at Johnson Memorial Hospital in Franklin.

Q What work do you do at the Johnson Memorial Hospital?

A I see all oncology patients, so acting more as a general oncologist than just the specialty at I.U.

Q Would you describe on a day-to-day basis what your work is at the Indiana University Medical Center.

A I have three days of clinics. On Monday I see my general oncology patients, which also -- basically the nonlung cancer patients. On Wednesday is the full day of the thoracic clinic where I see most of the lung cancer patients. And then on Thursdays I go to Johnson Memorial Hospital where I work as an oncologist and see patients at the Johnson Memorial Hospital.

The other days are confined -- are for office work, writing, reviewing the clinical -- my clinical research, that type of thing.

Q Are you board certified in any specialty?

A Internal medicine.

Q When did you become board certified?

A I believe that was in '92.
Q Are you board eligible in any specialty?
A Medical oncology.
Q What does board eligible mean?
A Means that I have gone through all the requirements in terms of training and am eligible to sit for the boards. Those boards in oncology are offered every other year. And the first time I'd been available would have been one or two months after completion of fellowship, and for financial reasons have not taken the boards yet and will take them in the fall this year.
Q Does it cost money to take the boards?
A It certainly does.
Q What do they charge?
A It's a thousand dollars to take the boards. A review course would be another thousand.
Q The board certification exam will be coming up when?
A I think it's October.
Q Are you licensed to practice medicine in any other state besides Indiana?

A New York.
Q Do you belong to any professional societies?
A Yes, the American Society of Clinical Oncologists, and I believe still the American Medical Association, as well as the American Association of Cancer Research.
Q Are you familiar with an organization called the Hoosier Oncology Group?
A Yes.
Q Are you a member of that?
A Yes. That is more of a research group which was developed at Indiana University. And is a consortium of medical oncologists throughout the state of Indiana as well as the adjacent states for the conduction of clinical trials. A collaborative effort, basically, with various oncologists.
Q Would you describe what you mean by trials?
A A trial would be sort of -- experiment is another way to put it. What you would do is, in attempt to successfully treat cancer, ideas are developed either related from the laboratory, generated from the laboratory, or

prior experience in patients, and an idea is then generated. In order to prove or disprove that concept, it needs to be studied, essentially, in various ways. It is under a controlled setting that treatment option, for example, is given to patients to test the hypothesis whether or not that study -- that treatment regimen is effective or not.

Ultimately the major determination is compared to either no treatment or a different treatment in a randomized setting for hundreds of patients, typically, to prove or disprove its effect.

Q Have you been invited to teach or give lectures at other institutions besides Indiana University School of Medicine?

A Yes.

Q Where?

A There have been at the Mayo Clinic down in Jacksonville, Florida; hospitals in Terre Haute, within the Terre Haute, Vincennes. I will be going to Seattle in a couple of months.

Q What have you taught or lectured about at those

places?

A Lung cancer typically, esophageal cancer, and the more recent, there will be a couple on small cell lung cancer specifically.

Q What currently are your teaching assignments on the academic staff at Department of Medicine at I.U.?

A I develop and coordinate the house staff noon luncheon lecture series in hematology/ oncology, so that other members of our department, including myself, give lectures to the house staff to update them on general oncology, principles.

There's also this coordinator for the second year course for medical students, again in hematology/oncology as well.

Q How much of your professional time do you devote to the diagnosis and treatment of cancer in the chest?

A That's probably 50 percent of my clinical time, if not more. Maybe up to 70 percent.

Q How much of your professional time do you devote to diagnosis and treatment of lung

cancer in particular?

A That would be over 80 percent of my clinical time in the thorax. About 80 percent to 90 percent of all the patients that I see in the thoracic clinic are lung cancer related.

Q Have you been involved personally in any research in regard to the diagnosis or treatment of lung cancer?

A Yes.

Q Would you describe those activities.

A Right now we have a study that's ongoing that I have written for the treatment of patients with limited small cell lung cancer, that is lung cancer that's confined to one side of the chest. That paper was submitted and accepted by our major journal for treatment for patients with relapse small cell lung cancer, that is cancer that has come back after its initial treatment.

Another paper will be submitted shortly, which I'm an author on, for the treatment, again, of chemotherapy in extensive small cell, that is small cell that would have metastasized

elsewhere.

Q You also actively treat patients, do you not?

A Yes.

Q Do you supervise other physicians who treat patients with lung cancer?

A Yes, principally the fellows. I also work with other members of our thoracic clinic which would be thoracic surgeons, pulmonologists, lung doctors, gastroenterologists, and radiation oncologists as well.

Q Have you published any articles in regard to lung cancer that have been accepted in national journals?

A Yes, those were the publications I had mentioned talking about my clinical research in small cell specifically.

Q Of the lung cancer patients who come to Indiana University Medical Center for diagnosis or treatment, what percent of them will you personally be involved with?

A Probably over -- probably over 80 percent.

Q You personally?

A Yes, that's -- in our clinic we have what's

actually unique to the state of Indiana, our multidisciplinary clinic where all the disciplines I had mentioned earlier get together and we discuss all the patients the night, the evening before that the patients are seen on Wednesday. And so even a case that would be a lung cancer that's going to be operated on by a surgeon, I still will hear the case and will discuss if there's anything for medical oncology or other of the disciplines to look at.

So specifically that I will actually personally see the patient themselves in the clinic the following day, that would probably be on the order of 60 to 70 percent of those patients seen in the clinic.

Q In a given week, approximately what percentage of the patients you see with lung cancer have small cell lung cancer?

A Probably about 40 to 50 percent. Even though small cell lung cancer actually only makes up about one-fourth of all lung cancer cases, since it's so initially sensitive to

chemotherapy, I will see all those and will not necessarily see all the nonsmall cell lung cancer patients who may just go to surgery and then may not see them. So my practice is skewed a little bit toward small cell lung cancer.

Q Do you know whether the Indiana University Medical Center sees a higher percentage of small cell lung cancer patients than other university medical centers might see?

MR. McELVEEN: I object on the basis there has been no foundation laid for the doctor's testimony.

THE COURT: I agree. Sustain the objection.

MR. KLAPPER: I'll ask that again.

Q Can you state whether the Indiana University Medical Center sees more than usual or more than average number of small cell cancer patients compared to other places where you've been?

MR. SHEFFLER: Same objection,

your Honor.

MR. KLAPPER: He's got personal knowledge -- I'm sorry. Well, let me reask it.

Q Dr. Sandler, are you familiar with the volume or percentage basis of small cell lung cancer patients that are seen generally at other centers such as Indiana University Medical Center? That means university medical centers that you've been to or that you know about.

A Yes.

Q Is there any difference in the number of such patients that are seen percentage-wise at I.U. Medical Center than might be seen elsewhere?

A I think what I can best put that is Indiana University has a long history of developing treatment regimens for small cell lung cancer. Almost virtually all of the current treatment regimens that are used in small cell lung cancer at the current time have been developed over the years at Indiana University.

As a result, we get referrals from patients both from inside the state and outside the state, which may account for a slightly

different percentage of patients seen.

Q Dr. Sandler, do you have an opinion with a reasonable degree of medical certainty whether cigarette smoking causes lung cancer in human beings?

A Yes.

Q What is that opinion?

A It does.

Q What is your basis for that opinion?

A The basis would be that there is an increase, a documented increase risk of lung cancer in patients who smoke tobacco. It is both related to the dose and intensity, such that the more cigarette smoked or the depth at which it is inhaled, and for the length of time that it is smoked, correlates with an increased risk.

Additionally, when a patient discontinues their smoking, that risk declines. Although never to normal, it does decline over time. Sort of taking into account what's called Koch's Postulate, which was a gentleman, Robert Koch, who in microbiology circles documented that bacteria caused the disease, you remove

the bacteria and the disease goes away, similar to tobacco. So strong evidence that it does cause that.

Q Does the conclusion that cigarette smoking causes small cell lung cancer appear in medical treatises and medical journals that speak of the causes of lung cancer?

A The association with tobacco and small cell is probably stronger than any other form of lung cancer. There was a -- some of the authors in one of our textbooks called DeVita, one of our oncology textbooks, looked at a series of over 500 patients with documented small cell lung cancer. And less than 2 percent of the patients there denied any use of tobacco.

Q So 98 percent were smokers then.

A Over 98 percent.

Q Do you know whether there is a consensus among doctors in the United States and the world whether or not smoking cigarettes can cause small cell lung cancer?

MR. SHEFFLER: Objection, your Honor. I don't believe there's a foundation

laid for this question.

MR. KLAPPER: All right. We'll withdraw it and ask it.

Q In your background, your experience, and your studies, have you become familiar with the United States literature and world literature in regard to small cell lung cancer?

A Yes.

Q Can you state whether there is a consensus among doctors in the United States and in the world and those, in particular, evidencing their opinions in journal articles, treatises as to whether or not smoking cigarettes can cause cancer of the lung in human beings?

A The sentence was long and I don't know if yes or no is the right answer, but I --

MR. SHEFFLER: I object, your Honor.

A But I know of --

Q Answer it your own way.

A Yes, I know of no practicing physician that denies the association between tobacco and lung cancer.

Q Do you know of any reliable, respected medical journal in the world in the last, we'll say, 20 years that has concluded that there is no causation between smoking and small cell cancer?

MR. SHEFFLER: I object, your Honor. There has been no testimony this man has read all the reliable reports, data, medical journals in the world over the last 20 years that dealt with the issue.

THE COURT: The question, I think, as to his knowledge, do you know. I think he's able to answer that. Overrule the objection. Doctor, you may answer, please.

A No, I don't.

Q Now, directing your attention particularly to the disease known as small cell lung cancer, would you please first tell the jury what it is.

A Lung cancer in general is divided into two groups: Small cell, nonsmall cell. Small cell lung cancer, the biggest difference between the two, is nonsmall cell is a surgical disease,

small cell is treated with chemotherapy. Small cell is the malignancy of what's called the neuroendocrine cells in the lung, a fancy term for -- these are not the cells that do the exchange oxygen in the lung. These are cells that put out various proteins and other signals in terms of function of the lung but actually do not do the exchange, but they're found within the bronchioles or the air tubes in the lungs.

Q Doctor, which type of lung cancer, in your opinion, most commonly causes -- is most commonly caused by smoking?

MR. SHEFFLER: Objection. I believe this was already asked and answered, your Honor.

MR. KLAPPER: I don't believe so.

THE COURT: Overrule the objection. You may answer, please.

A There's association with all of the lung cancers with smoking. Squamous cell and small cell have the highest association with tobacco, probably small cell over squamous.

Q Among the various types of lung cancer, about what percentage is small cell cancer of the lung?

A About 25 percent.

Q Dr. Sandler, among all the cases you have treated for small cell lung cancer, how many of your patients were cigarette smokers?

A All of them.

Q Would you define the word metastasis to us.

A Metastasis is a spread of a cancer from its original site to a more distant site, either via the lymphatic system to the lymph nodes, or bloodstream to other organs such as liver, bone, brain.

Q What kinds of things can be done by a physician to attempt to treat small cell cancer of the lung?

A It depends on the initial presentation of small cell. If it is initially presented outside of the lungs, as in extensive small cell, then the treatment is chemotherapy alone, with radiation reserved for what we call palliative symptoms, not an attempt to cure, but an attempt to ease

the pain perhaps of bony metastasis.

Limited disease, that which, again, is confined to the one side of the chest, currently the treatment is chemotherapy with the addition of chest radiotherapy.

Q What kinds of drugs have been used in the past ten years for the treatment of small cell carcinoma of the lung?

A For the past ten years, again, depending upon where its presentation, but Cytoxan, Adriamycin, Vincristine, or CAV, is one commonly accepted regimen. More recently Cisplatin and etoposide, with or without a drug called I-Phosphomide, has come into play.

Q Have you seen small cell lung cancer on chest films?

A Yes.

Q How does the small cell lung cancer generally appear on a chest film?

A Oftentimes without a specific peripheral lung lesion, that is a abnormality -- without an abnormality of the chest in the lung field, per se, but often within a very central location to

either side of what we call the mediastinum, the middle of the chest where the major vessels and trachea is. It appears as an abnormal shadow, abnormal light area.

Q Does there appear to be any connection between how much and/or how long a person smokes and the likelihood he will contract small cell lung cancer?

A All I'm familiar with is the history of smoking. I would assume, as in any lung cancer, the longer one smokes, the higher the risk of lung cancer and small cell specifically.

Q About what percentage, if you know, of small cell cancer originates outside of the lung?

A That is approximately 3 percent.

Q In the 97 percent of small cell cancers that develop, what tests or studies can be done in addition to x-rays to detect the presence of the cancer cells?

A Well, definitively, one needs a diagnosis with tissue, so a bronchoscopy, one could either do sputum cytology, meaning the patient cough,

bringing up sputum, or what's more commonly done is bronchoscopy, putting a tube down into the airways and then taking a biopsy either with a needle or a small chunk of tissue from the suspected site.

Interestingly, with small cell lung cancer, unlike some of the other lung cancers, there often may not be an actual, what's called endobronchial tumor, or tumor, say, within the lumen or the hole of the airways because the small cell actually tends to grow up and grow outward. And often what is seen is an indentation, or redness, within the lumen, and then the pulmonologist who does the bronchoscopy will take biopsies of that site.

Q Did I ask you last year to review the case of Richard Rogers?

A Yes.

Q Did you do so?

A I did.

Q Did you review his medical records from Community Hospital?

A Yes.

Q Did you review the reports of the chest x-rays?
A Yes.
Q Did you review the report of the bronchoscopy that was done?
A Yes.
Q Did you review the pathological examination report by Dr. Powers, August 16, 1986?
A Yes.
Q Did you review the autopsy report concerning Mr. Rogers that was prepared by Dr. Lloyd Rothouse?
A Yes.
Q Did you learn of Mr. Rogers' smoking history?
A Yes.
Q Were you provided with a chronology of his smoking history from his early years until the time he quit?
A Yes.
Q Speaking generally, what did you learn about the smoking history of Mr. Rogers?
A He had an extensive smoking history that began very early, I believe around the age of 6. And what we like to do in oncology, and I imagine

pulmonary medicine does as well, is add up these, what we call pack-year histories. Where, for example, somebody smokes two packs of cigarettes for five years, you multiply, that's ten pack-years.

To the best of my calculations, Mr. Rogers was somewhere in the range of 90 to 100 pack-years.

Q Doctor, I'm going to hand you first the bronchoscopy report you spoke of and then the pathologic exam by Dr. Powers and ask you if those are the two documents that you -- two of the documents that you did review.

A Yes. I've seen these documents before.

Q Do you have an opinion as to whether the information contained in those two documents is or is not consistent with the diagnosis of small cell cancer of the lung?

A It is quite consistent, if not absolute.

Q Do you have an opinion as to whether or not Richard Rogers had small cell cancer of the lung?

A I do have an opinion.

Q What is that opinion?
A He had small cell lung cancer that originated within the lung.
Q What do you base that opinion on?
A Both the bronchoscopy and the path report, specifically in the path report, under microscopic examination, this is the point at which the pathologist is reviewing the actual specimen under the microscope.

And what it states is fragments of the bronchial wall which contain an infiltrating small cell carcinoma. Infiltrating implies or defines that the small cell originated within there, spreading along the bronchial mucosa. As opposed to something that may have spread from some other site. This is sort of a classic, if you will, histologic presentation of a small cell lung cancer.

Additionally, it was also in adjacent lymph nodes, also seen quite commonly.

Q Would you describe the evidence in the bronchoscopy which leads you --
A Sure.

Q I'm sorry, go ahead.
A The scope was advanced into the right main stem bronchus which appeared to be normal, although there was some lateral indentation and edema along the wall.
Q Now, did that indicate anything in particular to you, the indentation and edema along the wall?
A As I mentioned earlier, again, the tumor, this probably relates to those other lymph nodes that were outside and pressing in upon the bronchial wall. The body's natural reaction to some sort of abnormal finding is to have inflammation and edema, swelling, and that's probably why they were seeing that.

There was only a very small opening in the right upper lobe bronchus with extrinsic compression and marked edema in the area. Same concept as before.

Again, with small cell, oftentimes all you will see within the small cell cancer within the bronchus, at least see from the bronchoscopist's perspective, is that sort of

erythema, redness, and swelling. You will not often see the actual mass protruding into the lumen. Often doesn't happen with small cell, just because of its histologic or origination.

Q Dr. Sandler, do you have an opinion with a reasonable degree of medical certainty whether the small cell cancer of the lung that Richard Rogers had was related to long-term smoking?

A I do.

Q What is your opinion?

A I believe it was.

Q What do you base that opinion on?

A The evidence that his smoking history and the smoking, the correlation between smoking and small cell, and that I personally have never seen a small cell lung cancer patient without a history of smoking and, more importantly, physicians with even more experience than myself feel the same.

It would almost, not quite, but almost would justify, if you saw more than a couple of patients, would almost justify reporting that in the literature as a case report just for

interest sake.

Q Was there treatment given to Richard Rogers for his lung cancer?

A Yes.

Q Can you tell us generally what was done for him?

A Yes. He received actually a regimen that also was devised originally at Indiana University. It was, I believe, five or six cycles of Cytoxan, Adriamycin, and Vincristine, so-called CAV regimen. Oncologists love to take abbreviations. And then this was followed by, I believe, two cycles of the Cisplatin and VP16, or etoposide.

Subsequently he achieved what was felt to be a complete remission, and that is to say radiographically his disease had disappeared. As such, at that time he received what would be considered consolidated radiotherapy, he received radiation therapy to the chest, to further eradicate any so-called microscopic disease that would not be visualized on a chest x-ray.

And then he received prophylactic cranial irradiation, and that is to say, one of the areas of relapse in small cell lung cancer is the CNS, the brain, the spinal column, and the spinal fluid. And the reason is there's an interesting entity called the blood-brain barrier, and that is something that has been around, obviously, since man has been around, and it certainly wasn't around to defend against chemotherapy, but what it was around for was to defend against poisons, of which, unfortunately, chemotherapy is one. But -- so chemotherapy doesn't penetrate into that very well, doesn't get into the brain very well, or the spinal fluid. And as such, that's a common site of relapse for small cell lung cancer, not dissimilar from acute lymphocytic leukemia in children.

So, prophylactically, sometime patients are given radiotherapy to the brain to eliminate any potential cells that were present there that the chemotherapy couldn't get at.

Q Dr. Sandler, if you were doing a residency in

internal medicine beginning in 1987 -- is that right?

A Middle of '87, I guess.

Q All right. Part of what you did was to treat lung cancer patients at that time, too, I imagine?

A More taking care of the complications at that point.

Q You have had experience since then in treating patients with chemotherapy yourself.

A Yes.

Q Do you consider the treatment that Dick Rogers received for his lung cancer to be appropriate as of 1987?

A Oh, absolutely.

Q As the disease progressed, where else did the cancer become located in his body?

A He subsequently had symptoms of back pain and was felt to have had cancer present in the spine. Oftentimes that's manifested as bony disease, although a bone scan was normal. Ultimately it was felt that he had -- his small cell had spread to the cerebrospinal fluid.

And if memory serves me, I think they had to presumptively treat him. They tapped him, but had a difficult time tapping him with -- doing a lumbar puncture to get out the fluid, which is how the -- how it is actually -- the diagnosis is made, of course, with cells. But given the scenario that was present, it was felt to be quite consistent with that and he was treated for that.

Q Are you aware that on autopsy the cancer in the lung was no longer there?

A Yes.

Q Do you have an opinion whether by the time he died, the treatment he had been given had removed most or all of the cancer from the lung?

A It's likely that all the cancer was gone. It's also likely that there may have been some cells left behind. It would be pretty monumental for a pathologist to take an enormous specimen such as a lung and be expected to take ten-micrometer slices and determine if the entire lung was clear. But, certainly, to the

best of their ability, they felt it was --
there was no cancer seen.
Q Have you seen situations such as that before personally where the originating primary cancer of the lung is cured but the patient still dies because the cancer has gone to other parts of his body?
A Yes. That's actually the most -- I'm sorry, but that's actually the most common way that patients pass away from small cell lung cancer.
Q Does the fact that the lung cancer was gone by the time the autopsy was done in Mr. Rogers' case have any effect, in your opinion, that he did have small cell lung cancer caused by his smoking?
A No. He, in fact, still had it present in the cerebral spinal fluid, that they had found in the leptomeninges, the lining of the spinal cord, so the small cell was clearly there.
Q Do you have an opinion based upon reasonable medical certainty as to the cause of death of Richard Rogers?
A I do have an opinion, yes.

Q That's the way we're supposed to do it. Would you tell us what that opinion is?

A Yes. The exact cause of his death, of course -- I mean, this was sort of a spectrum of events as to how things went. Pathology specimen, or the pathology report is a little vague, and I don't even think that they specifically can tell you precisely the inciting event that caused his death.

But he developed lung cancer as a result of his smoking, he was given chemotherapy, he did well, but then relapsed shortly thereafter, and then received treatment for recurrent disease in the cerebrospinal fluid, died shortly thereafter. And was found at the time to have disease in the cerebrospinal fluid.

That may have been the cause of the death. The disease, that part is unclear. There could have been -- there was some question of septic or infectious complications that may have arose as well. But everything all was directly related to the treatment of lung cancer or the lung cancer itself.

It's also conceivable that the malignancy present within his cerebrospinal fluid and lining of the spinal cord and the brain may have resulted in his death as well. I don't know that anybody can tell you specifically.

Q Do you have an opinion, but for his cigarette smoking, whether Dick Rogers would have contracted small cell lung cancer?

A I do not believe he would have.

Q Do you have an opinion, but for his lung cancer, whether Dick Rogers would have died on October 2, 1967?

A I don't believe he would have.

Q I'm sorry, 1987. Same answer?

A Right.

Q Do you consider the works "Cecil's Textbook on Medicine" -- I want to name three of them for you -- "Harrison's Principles of Internal Medicine" and "DeVita's Principles and Practice of Oncology" to be reliable and authoritative works?

A Yes.

Q Do you and physicians like yourself refer to

those treatises in your work?

A Yes.

MR. KLAPPER: Thank you very much. I'm sorry, your Honor, I need to offer his CV.

THE COURT: Okay, thank you. Go ahead and do that and then I want to take a break so our computer people can --

MR. KLAPPER: Your Honor, we'll offer Exhibit 98, which is the curriculum vitae of Dr. Alan Sandler.

THE COURT: Any objection to 98, CV of Dr. Sandler?

MR. HARDY: No objection.

THE COURT: Thank you, Mr. Hardy. Any objection to 98?

MR. SHEFFLER: No objection, your Honor.

MR. McELVEEN: No, sir.

THE COURT: We'll show 98 admitted into evidence. You may distribute it to the jury, please.

Okay, let's take -- I was told by our

court reporters if we can take a break about an hour or so and so they can begin processing the morning business, it is a help to them and to keep matters moving and also a help then to us.

We'll take a brief recess. With that, the jury may rise. You may retire, we'll be in recess momentarily.

(The trial recessed at 10:11 a.m., to reconvene at 10:33 a.m.)

MR. SHEFFLER: Judge, we have a brief motion before the jury comes back.

THE COURT: Okay. I'll ask the court reporter to put us on the record, please.

Yes, Mr. Sheffler.

MR. SHEFFLER: Your Honor, this is no reflection on Dr. Sandler, he's a fine man, I'm sure, but we believe that his testimony is completely and utterly cumulative of what we've already heard in the case.

We were told yesterday that Dr. Sandler was going to add something new. Dr. Sandler has testified about oncology, medical oncology. Dr. Gunale has testified to the exact same

facts. Dr. Sandler has testified about the bronchoscopy report, the pathology report. Dr. Gunale testified to the exact same facts about the pathology, same pathology report.

Dr. Sandler has offered some views about smoking and lung cancer. Those views were stated previously by Dr. Jay, by Dr. Burns, and were also stated by Dr. Gunale.

There's nothing that this witness has added to the evidence in this case. It's completely cumulative, and we believe, therefore, it's improper, and we request the Court to strike the testimony.

THE COURT: Motion to strike overruled.

Bring the jury in, please.

(The jury was escorted into the courtroom at 10:35 a.m.)

THE COURT: Jury may be seated. Okay, we're ready now for cross-examination. Mr. Sheffler.

MR. SHEFFLER: Thank you, your Honor.

CROSS-EXAMINATION,

QUESTIONS BY MR. BRUCE G. SHEFFLER:

Q Dr. Sandler, we've met before. Let me reintroduce myself. My name is Bruce Sheffler. I have a few questions about your testimony.

Doctor, obviously you never met Mr. Rogers, did you?

A No.

Q In fact, you were not licensed to practice medicine yet when Mr. Rogers was being treated for lung cancer; isn't that correct?

A Correct.

Q In fact, you weren't licensed to practice medicine until three years after Mr. Rogers passed away; isn't that true?

A Correct.

Q Doctor, you've told us that you were an assistant professor at I.U.; am I correct?

A Correct.

Q Does I.U. also have a level of professorship called associate professor?

A Yes.

Q Is that a step up from assistant professor?

A Yes, there's assistant, associate, to full professor.
Q So there's like three rungs on the ladder, so to speak, and you're at the bottom rung there?
A Yes.
Q You're moving your way up, I'm sure.
A Hopefully.
Q Doctor, you mentioned that you were a member of some medical associations as well, but I think you told us you were a member of the American Association for Cancer Research; do you recall that?
A Yes.
Q To become a member of that organization, Doctor, do you have to pass any kind of test?
A No.
Q You just kind of pay your dues and you're in?
A You have to be involved with research related to cancer.
Q Okay. You're involved with some research related to cancer, aren't you?
A Yes.
Q That research really is on chemotherapeutic

agents; right?

A Yes.

Q I mean, your research is devoted to how you can devise drugs to treat cancers.

A Correct.

Q You give lectures on that research that you do.

A True.

Q I think you told us that you published some articles on that research as well.

A That's correct.

Q And the research that you do some peer reviews for is again on therapeutic agents, agents that are used to treat cancers.

A Yes.

Q But you don't do any research on carcinogenesis or the process by which cancer is developed, do you?

A I do not.

Q You don't do any research on the etiology, the causation of cancer, do you?

A Do not.

Q You have never published any articles on the cause of lung cancer, have you?

A No.
Q You don't do any peer review for articles on the cause of lung cancer or carcinogens, do you?
A Do not.
Q As I understand it, you were retained basically by plaintiff's counsel to review medical records and some materials they gave you to come to an opinion about this case; is that right?
A Yes.
Q It's your understanding, Doctor, generally speaking, that lung cancer is a multifactorial disease, isn't it?
A Yes.
Q By that it means that there is more than one factor that can be a cause of lung cancer; isn't that true?
A Yes, but not to the same degree. There are many factors associated. There are some much more established than others, smoking being one.
Q I think you told us -- strike that.

Doctor, isn't it your view that there are over 400 potential causes of lung cancer?

A There are a lot of potential. I can't be held to 400, but there's a lot.

Q There's a lot of potential causes of lung cancer, though, aren't there?

A Yes.

Q And nonsmokers can and do get lung cancer, can't they, Doctor?

A 10 percent of all lung cancers in America are in nonsmokers.

Q Well, about 17 to 18,000 nonsmokers get lung cancer every year, don't they?

A About 160,000 are smokers.

Q Well, Doctor, isn't it true that nonsmokers with no exposure to known risk factors like asbestos or smoking or other known risk factors do get lung cancer; isn't that true?

A Not small cell, but they do get -- they typically get adenocarcinoma of the lung.

Q Doctor, the figures that relate lung cancer to various risk factors are primarily epidemiology studies, aren't they?

A Yes.
Q Epidemiology studies are those studies that correlate risk with disease and populations; right?
A Yes.
Q Now, I know you're not an epidemiologist, are you, Doctor?
A I am not.
Q In fact, that's not one of your areas of specialization, is it?
A No.
Q You've never read an epidemiology study about smoking and lung cancer, have you?
A No.
Q In fact, Doctor, isn't it true that these studies have been published in the literature and there have been peer reviews of these studies and proponents and opponents about the validity of these studies have been published in the literature; isn't that true?
A I've read the summary of the reports, not the exact reports.
Q You haven't read the exact reports by the

opponents and proponents of the epidemiology studies, you've read reviews of the reviews; is that correct?

A Correct.

Q But you're aware, aren't you, Doctor, that there have been various different associations published about smoking and lung cancer.

A Yes.

Q Sometimes these are stated in terms of relative risks, are they not?

A Yes.

Q What that means is that some of these studies show certain percentage of cancers in nonsmokers, other studies show a different percentage of cancer in nonsmokers; isn't that true?

A Yes.

Q Although you haven't reviewed the studies themselves, you know that there are epidemiologists who have done these studies that have showed different percentages of lung cancer in nonsmokers; isn't that true?

A Yes.

Q And you know that Dr. Alvin Feinstein is an epidemiologist of some note, is he not?
A He was present where I trained in internal medicine at Yale, so I do know him.
Q He was in the epidemiology department there, wasn't he?
A Section of internal medicine.
Q He is a biostatistician and epidemiologist at Yale University, is he not?
A He is.
Q And someone who you hold as somebody who is knowledgeable and reputable in the field, isn't he?
A Certainly.
Q Dr. Feinstein wrote an article with a Dr. Raymond Yesner -- by the way, Raymond Yesner is also at Yale, isn't he?
A I think he is. I don't know if he is currently.
Q In this study he concluded that the prevalence of small cell carcinoma was 10 percent in noncigarette smokers? Would you disagree with that representation by Dr. Feinstein, that

finding?

A I doubt he was lying on his findings, if that's what you mean. I mean, if you're telling me that, I can't see it from here.

MR. SHEFFLER: Exhibit 95, Counsel.

Q Do you see where it says "Small cell undifferentiated cancer was the only subtype to show a great progression in change in relation to the amount of cigarette smoking"?

A Yes.

Q It goes on to say, "The prevalence of this cellular type increased monotonically from 10 percent in the noncigarette smokers to 29 percent in the heavy cigarette smokers"; see that?

A I do.

Q So at least Dr. Feinstein and Dr. Yesner from Yale, in their reappraisal of the histopathology of lung cancer, found that 10 percent of small cell carcinoma of the lung occurs in noncigarette smokers.

A Yeah. Before I state it anything more, A, I

haven't read this entire article; B, this is from 1973, and I would suspect that -- well, I know that all the data that I've reported to you was more recent than that. So it is conceivable that either the pathologic interpretation, or what have you, that -- I would bank on data from 1990 a little bit more than 1973, but --

Q Okay. Doctor, what was the study, the epidemiology study that you're banking on? Or was there more than one?

A No, what I'm referring to is their incidence of smokers with small cell and what I reported, the 500 patients with less than 2 percent claiming were nonsmokers.

Q That was one study, wasn't it?

A As is this.

Q So now we have two studies. One has 10 percent; the other has, I think you said 2 percent.

A In DeVita, in the chapter under lung cancer, there's more than one study that claims to relate that the rate of small cell in smokers

is significantly higher than this.

Q Have you reviewed those studies, Doctor?

A I reviewed the results, yes.

Q Did you review the studies, Doctor?

A As much as this one.

Q Did you review the studies, Doctor? Did you read the studies?

A As much as I --

MR. KLAPPER: Your Honor, I'm going to object, that's been asked and answered about three times.

THE COURT: I agree. Sustain the objection. Next question.

Q Doctor, you don't hold yourself out as a toxicologist, do you?

A No.

Q But you know what toxicology is.

A I do.

Q Toxicology is the study through animal studies of disease processes, isn't it?

A Yes. Can be in humans as well.

Q But toxicology uses animal models to study disease; isn't that true?

A Yes.
Q Now, I know, Doctor, as a clinical oncologist you have had some training in the field of toxicology, haven't you?
A I'm familiar with it.
Q You haven't read any toxicology research with respect to smoking and lung cancer, have you?
A No.
Q But one of the things that you have reviewed in preparation for your testimony today was some materials given to you by Mr. Klapper; isn't that true?
A Could you be specific?
Q Well, didn't Mr. Klapper give you a copy of the 1982 Surgeon General's Report?
A Yes.
Q This was in preparation for your testimony here today, wasn't it?
A Yes.
Q You had never read a Surgeon General's Report on smoking and health before that, had you?
A No.
Q It's not something that you do, read Surgeon

General's Reports on smoking and health to treat patients with -- for oncology problems, is it?

A Not necessarily, no.

Q So, the first time you ever read a Surgeon General's Report with respect to smoking and health was sometime after you got involved in this case and Mr. Klapper gave you one; right?

A Yes.

Q And the report that he gave you was the 1982 report; correct?

A I believe so.

Q You reviewed that report, didn't you, Doctor?

A I flipped through it. I did not read it cover to cover.

Q Well, in your flipping through, Doctor, did you come across the statement in the 1982 report at page 218 that says: "Attempts to induce significant numbers of bronchogenic carcinoma in laboratory animals were negative in spite of major efforts with several species and strains." Did you see that?

A It's hard to get an animal to take a full drag

on a cigarette.

Q Is that how they did it, Doctor?

A They forced -- my recollection is that they forced smoke into the animals, which is not quite the same as someone's passively smoking a cigarette.

Q It's not quite the same, but they forced the smoke into the animals at high enough quantities for the researchers to draw the conclusion that the test results were negative. Isn't that true?

A Yes, they attempted to do that, that's correct.

Q They did the best they could, didn't they, Doctor?

A Yes.

Q Doctor, you know what the study of carcinogenesis is, don't you?

A Yes.

Q That's the study of cancer causation, isn't it?

A It is.

Q A lot of present research is undertaken now in carcinogenesis, isn't it?

A Yes.

Q Studies are being done by molecular biologists, isn't it?
A Yes.
Q And it is also being done by cellular biologists.
A Yes.
Q Part of what the scientists are doing today is trying to discover why it is cell, a normal cell becomes transformed into a cancerous cell; isn't that true?
A Yes.
Q Isn't some of the thinking and theories of today that there may be genetic involvement in transforming a cell from a normal cell to a neoplastic cell?
A Yes.
Q That means there may be some kind of genes, certain genes in the cell that become transformed some way that's yet unexplained, to become a mutation, at least, of cancer; isn't that true?
A The change would be a mutation.
Q But the way that change occurs has not been

elucidated for small cell carcinoma, has it?
We don't know how the genetic changes occur in the small cell carcinoma, do we?

A No.

Q There's been some suspicions, haven't there? Some genes have been suspected as being involved, haven't they?

A Yes.

Q One of the genes suspected of being involved is the retinoblastoma gene, isn't it?

A Yes.

Q Doctor, the retinoblastoma gene is also suspected of being the cause of cancer in the eye, isn't it?

A Retinoblastoma, that's how it got its name.

Q And that's a cancer, isn't it?

A Yes, it is.

Q And the same gene is thought to be involved, perhaps, in the development of the small cell carcinoma of the lung; isn't that true?

A It's uncertain if its development. What is known currently is that it may be involved with the resistance, the subsequent development of

resistance to the chemotherapy. Whether or not it is the inciting event of the cancer, I don't believe is felt to be the case as of now.

Q We don't know, do we, Doctor?

MR. KLAPPER: Objection. He answered the question, your Honor.

Q Do we know whether the retinoblastoma gene --

MR. KLAPPER: Would you please wait until the Judge rules.

MR. SHEFFLER: I withdrew the question.

THE COURT: Yes, you may answer. Continue.

Q Do we know whether the retinoblastoma gene is involved in the development of cancer in small cell carcinoma?

A No.

Q We don't know whether other genes may be involved in small cell carcinoma, do we?

A Correct.

Q Research is ongoing in that very area today; isn't that true?

A Yes.

Q To your knowledge, Doctor, has any of the suspected genetic events that causes the cell to transform into a neoplastic cell, has any of those events been directly linked to any constituent in cigarette smoke?

A What's known is a number of the carcinogens are present in tobacco. The precise inciting event is not known.

Q Well, is the answer to my question, Doctor, that none of the suspected genetic events in carcinogenesis of small cell carcinoma of the lung have been directly linked to cigarette smoke; that's a true statement, isn't it?

A Yes.

Q You mentioned, Doctor, that the view of you and others is that the neuroendocrine cell may be the cell that is the cell of genesis for a small cell carcinoma; do you recall that testimony?

A I do.

Q And the neuroendocrine cell, Doctor, is formed in the fetus in the development of the neural crest, isn't it?

A Yes.
Q Those cells are disbursed throughout the body, are they not?
A They are.
Q So neuroendocrine cells are found in many other organs than the lung, aren't they?
A Yes.
Q Doctor, getting to your specialty of clinical oncology, is it an accurate statement that the small cell carcinoma is one of the variety of different types of cancer that may arise in the lung?
A Yes.
Q Is it the most aggressive and rapidly growing of the various types of lung cancer?
A It's generally considered so, yes.
Q Would you agree, Doctor, that from the time of the first transformed cancer cell to diagnosis of small cell carcinoma is generally one and a half to three years? Generally 18 months to 36 months?
A From the time of the first cell?
Q To the diagnosis. The presentation.

A That would appear reasonable.
Q Okay. Mr. Rogers was diagnosed sometime in 1986; is that correct?
A Yes.
Q So would it be reasonable to assume that the first cancer cell was present in Mr. Rogers sometime in 1983 or 1984?
A Yes.
Q Doctor, are you familiar with the theory that there are certain morphologic changes that occur in lung cells of smokers that progress to smoking related cancer? Are you familiar with that theory?
A Field cancerization, I believe it's called, yes.
Q Morphologic means what, Doctor?
A Well, it's the actual appearance, the phenotype, what something looks like, whether it be grossly or under a microscope.
Q Now, the theory that smoke causes cells in the airways to change in appearance, change in morphology over time until a cancer is developed, you're familiar with that theory;

right?

A Yes.

Q And these changes occur at the microscopic level; isn't that true?

A Yes.

Q And the first change is that it's believed, in this progression of smoking related cancers, that the cells, the columnar cells in the epithelium are changed in shape and size; right?

A Yes.

Q Now, the columnar cells are those kind of cuboidal cells with the cilia on top; correct?

A Yes.

Q And it's thought that as the smoke changes these cells, they become flattened; right?

A Yes.

Q And they become what appears to be squamous type cells; right?

A Yes.

Q These are flattened cells instead of the tall cells with the cilia; correct?

A Correct.

Q And the cilia is denuded, it's gone.
A Right.
Q And then as the changes occur further, it is believed that these cells become dysplastic; right?
A Correct.
Q The first stage is called metaplasia, that's where they're flattened down, and the second stage is called dysplasia; right?
A Right.
Q The nucleus of the cells becomes more irregular; right?
A The cells change to become a more protected cell, to protect themselves from the irritant smoke.
Q It is believed that if the progression continues, and smoking continues, the theory goes, that this will result in a smoking-related cancer.
A Right. At least as specific for a squamous cell carcinoma.
Q Well, it is believed that theory is how lung cancers in smokers develops.

A Squamous cell carcinoma, yes. That also applies to the head and neck, as well, and esophageal.

Q Doctor, this change in appearance has to be observed under the microscope; right?

A Usually by the time that there is dysplastic changes, you could see this if you were looking in a bronchoscope.

Q Okay. Doctor, if these changes -- if the smoker quit smoking, the changes we were talking about, the metaplastic changes, and most of the dysplastic changes, they're reversible, are they not?

A Certainly metaplasia; the dysplastic can change as well, yes.

Q That's because these changes are called precancerous changes, aren't they?

A Correct.

Q Doctor, isn't it true that if a smoker quits smoking after eight or ten years, his risk of lung cancer is about that of a nonsmoker?

A Yes. It's still 50 percent higher.

Q Doctor, you were -- you quit smoking at age 31

or 32; isn't that true?

A 31.

Q Okay. So by age 39 or 42, your risk for lung cancer as a result of smoking will be about that of someone who's never smoked; isn't that true?

A Still about 40 to 50 percent higher.

Q Now, Doctor, if Richard Rogers had quit smoking in 1969, he would have avoided over 95 percent of his risk for lung cancer as a result of smoking; isn't that correct?

A I can't swear to 95 percent, but the risk would drop considerably.

Q Isn't it your opinion, Doctor, that if Mr. Rogers had quit smoking in 1969, it is more probable than not that he would not have had lung cancer; isn't that your opinion?

A No. The risk, again, lowers, but there is considerable -- the percentage of patients who get it, the risk is still 50 percent higher. I don't know the court of law as to how that definition would apply. In terms of in a court of law. He still suffers a risk as a patient

having lung cancer.

Q Doctor, do you recall when I took your deposition back in October, at that time you had reviewed the medical records that you reviewed for this case, hadn't you?

A Yes.

Q You reviewed Mr. Rogers' smoking history and his medical records, did you not?

A I did.

Q And you also had the chance to review whatever materials Mr. Klapper had given you about smoking and lung cancer; isn't that true?

A Yes.

Q You haven't reviewed the epidemiology studies, per se, that these declining statistics are based on, but you did review articles that reviewed reviews of those studies; is that correct?

A Correct.

Q Now, let me refer you to page 187. Let me ask you, Doctor, if I asked you the following questions and you gave the following answers at that time. And this time you were under oath;

right?

A Yes.

Q "Dick Rogers, let's use him as an example. If he had quit smoking in 1969 or 1970, in eight or ten years he would have avoided more than 95 percent of his risk for smoking related lung cancer; isn't that true?" Your answer: "Yes."

Is that a correct statement at that time?

A Yes. All I said differently today was I can't swear to the 95 percent. The greatest portion of his risk would clearly be diminished.

Q "And in your opinion," was the next question, "more probably than not, he would not have developed lung cancer in that case; isn't that true?" Your answer: "Okay, yes." Do you recall that?

A I do now.

Q That was your testimony back in October of 1994, wasn't it?

A Uh-huh.

Q That was true testimony at that time, wasn't it?

A It's true now.

Q And it's true now.

MR. SHEFFLER: Thank you, Doctor. Let me just confer with my co-counsel for a second.

Doctor, I have no further questions. Thank you very much.

THE COURT: Further cross exam?

MR. HARDY: No, your Honor.

MR. McELVEEN: No, your Honor.

MR. KEARNEY: No, sir.

THE COURT: Thank you. Redirect?

REDIRECT EXAMINATION,

QUESTIONS BY MR. MORRIS L. KLAPPER:

Q Dr. Sandler, is it necessary to understand each molecular change within each lung cell to conclude that smoking in fact does cause lung cancer?

A Although light has been made of merely epidemiologic data, I think virtually any practicing physician, be it academics or in private practice, would state unequivocally that there is enough data present now to state that tobacco causes lung cancer. And I don't

think that as a clinician or scientist, that our ignorance of that takes away from the strength or power of the fact that tobacco causes lung cancer.

Q Dr. Sandler, even if -- I'm trying to understand what Mr. Sheffler asked you. Even if he had quit in 1969, what effect would that have on his continuing chances of developing lung cancer, approximating?

A Again, the risk dramatically decreases. The risk always remains about 40 to 50 percent higher than someone who has never smoked before.

Q Okay. And are a number of those carcinogens, those cancer-producing matter that were spoken of on cross-examination, are any of them contained in cigarette smoke?

A Yes.

Q Lots?

A Several.

MR. KLAPPER: Thank you. No further questions.

THE COURT: Recross?

MR. SHEFFLER: No further questions, your Honor.

THE COURT: Any further cross-examination by the defendants?

MR. HARDY: No, your Honor.

THE COURT: Thank you, Doctor. You may step down.

Plaintiff's next witness, please.

MR. WARREN HOLLAND: At this time, plaintiffs would want to read portions of the deposition of Mr. Robert Heimann.

MR. SHEFFLER: Your Honor, may we see you at side bar on this, please?

THE COURT: Yes.

(The following bench conference was conducted out of the hearing of the jury.)

MR. SHEFFLER: Your Honor, there was a 48-hour rule instituted in the case where plaintiff was supposed to tell us what exhibits or what testimony he was going to offer 48 hours in advance.

We've never been told that Dr. Heimann was going to be a witness or that his testimony was

going to be used 48 hours in advance of today. I don't have the testimony with me.

There are a number of objections that I'm sure we're going to want to make. There is also a bench memo with respect to portions of the testimony in this case.

For your Honor's background, this testimony was taken in another case that involved allegations of fraud and allegations of misrepresentation. Quite a bit of testimony has been designated, I believe, that deals with issues that are not in this case and I think we need to have rulings on that.

Additionally, your Honor, there's material that we need to counter-designate, and I don't have that transcript with me. I did not know he was going to be called today.

THE COURT: I suppose part of the problem was I just made the ruling yesterday afternoon, so I'm part of the problem in that regard.

Yes?

MR. SHEFFLER: If I may suggest,

your Honor, what I would propose is that we get you our -- advocate counsel, maybe we can agree, but to the extent we can't, we get you our designations, our counter-designations, our objections, perhaps we can even do it on Monday afternoon. I don't think it's proper to do it today, given the fact that we weren't given advance notice. I don't have the transcript. I haven't really prepared for it, your Honor.

MR. WARREN HOLLAND: As the Court has already indicated, I mean how can we give advance notice when we didn't know we were going to use it. I don't care if we do it now if the Court --

THE COURT: He didn't say you were a bad guy, we ought to thrash you in front of the jury. That's why I volunteered that there was an objection to the entire deposition of this fellow, of the entire thing, and it wasn't until yesterday afternoon that I made a ruling on it. And until yesterday afternoon it wasn't proper to refer to it at all.

So, is there something else? Can we

defer --

MR. MICHAEL HOLLAND: We have the documents that we can do.

THE COURT: Okay. Have you had a chance to show those to anybody? I guess the person that needs to see them is me since it's my ruling.

Okay. We've got these and we can do that now, we can put off the Heimann deposition.

What else did you have planned for today?

MR. MICHAEL HOLLAND: More documents.

THE COURT: All right, yes.

MR. MICHAEL HOLLAND: So much fun.

THE COURT: It's fun for me. Okay, are there any live witnesses today?

MR. WARREN HOLLAND: No. We've got -- I don't know, we faxed them last night designations of Richard Rogers' discovery deposition and depending on their position on that, we could do that, too, and there are some fairly lengthy portions of that.

MR. OHLEMEYER: I would like to speak to that before we get to that point.

THE COURT: Speak to what?

MR. OHLEMEYER: The discovery deposition of Mr. Rogers was designated by the defendants, portions of it, in accordance with your pretrial order a few weeks ago.

There were some counter-designations that were given to us a week or so ago that appeared to be rule of completeness kind of things, counter-designations to our designations.

Last night at nine o'clock for the first time I got page and line designations from Mr. Klapper of the discovery deposition, including matters that had not previously been designated by the defendants and not previously designated by the plaintiff and don't appear -- appear to be objectionable, in any event.

My suggestion on the discovery deposition is that when the defendants designate portions of it to be read in the defense case, that we take the counter-designations and the objections and everything else up at that time.

And at that point it would be timely and appropriate, rather than having to deal with three pages of deposition designations that I got last night at 9 p.m.

THE COURT: Is that part of what you plan to do today, too?

MR. WARREN HOLLAND: Yes, your Honor.

THE COURT: Who has this deposition?

MR. WARREN HOLLAND: Which one?

THE COURT: I'm sorry, you're right. The Richard Rogers deposition.

MR. WARREN HOLLAND: It's at our office, we were making copies. We should have one by noon that will be marked up that I can give the Court also.

MR. OHLEMEYER: The problem is, your Honor, I haven't had a chance -- I got these designations last night at nine o'clock.

MR. WARREN HOLLAND: We're giving them a marked up copy, too.

THE COURT: Let's see, gee,

that's 14 hours ago. Sure, I understand.

MR. OHLEMEYER: I just think the easiest way to deal with this issue is take it up in our case as counter-designations to what we have previously and properly designated.

MR. WARREN HOLLAND: That's not the fact, your Honor.

THE COURT: You're wanting to do this now, though. You're saying that --

MR. MICHAEL HOLLAND: In our case.

MR. WARREN HOLLAND: In our case.

THE COURT: Well, okay. Let's take a step back. Let's do the exhibits that were offered into evidence last night, admitted into evidence with redactions.

Could we do this: How about if we take a recess, I need probably about ten minutes just to run through these and to take a look at the redacted copies, because my order of admission was subject to the redacting of certain evidence, certain matters from these.

I guess the next question is how you

wanted to offer these into evidence. Is there a way that you want to do it? Did you want to do it in front of the jury, did you --

MR. WARREN HOLLAND: I think we ought to do it in front of the jury, just offer them and then pass them at the break.

THE COURT: How about the ones that were not admitted?

MR. WARREN HOLLAND: As to how we --

MR. MICHAEL HOLLAND: Our offer was on the record last night, wasn't it?

THE COURT: I think you're right.

MR. OHLEMEYER: The record is clear on that, your Honor.

THE COURT: Okay. Well, let's take a -- I was trying to see if I can figure out some way to avoid bringing the jury in and out, but I can't. Because what they need to hear, I guess, before they're permitted to read the documents is the offer was like 37 through 54, roughly. I guess they need to hear, then, the Court sustains objections to these

documents and not to these before they can be given the documents.

So, we can do that in about 15 minutes and then we can break and give them some time to review the documents in the jury room during the lunch hour, we can simply expand the lunch hour, and during the lunch hour we need to sort of plan out what it is we're going to do for the rest of the day and how best to spend this day.

For right now, let's take about a 15-minute recess. Let me go over the redacted documents, we'll bring the jury back in --

MR. WAGNER: Judge, while we're up here, at least for planning purposes, is the plaintiff's case kind of winding down, are we going to have to start thinking about putting our evidence on pretty soon?

MR. WARREN HOLLAND: Yeah, you should plan to --

MR. WAGNER: Are you going to rest today?

MR. WARREN HOLLAND: No, we will

not finish today, but you should have somebody available I would think Tuesday afternoon, would be my guess.

THE COURT: Bill was suggesting, and we'll keep open again, Monday was a day for me to catch my breath and to deal with matters here, so Bill was suggesting that some of the matters -- was it the Heimann deposition or maybe the Rogers' discovery -- or Bruce was suggesting one of the depositions, we even take that up as late as Monday.

MR. WARREN HOLLAND: I don't mean to interrupt. If at all possible, we would like to avoid that because -- obviously we're outmanned and they have people coming out the ears that can do these things, but we have things to get ready for their case. If at all possible, we'd rather do it, you know, if it's convenient to the Court, but Monday is really the day we plan to keep working on the case and other things we've got to do. I would certainly prefer not to have it Monday, is that's possible, but if it's not --

THE COURT: Okay, well, I'll try.

MR. WARREN HOLLAND: Whatever the Court desires.

THE COURT: I hear what you are saying. We'll try to do that. The problem is that the Heimann deposition ruling came late, and so it sticks people like Bruce over here with no deposition -- or opportunity to do that.

This afternoon you've got a number of documents we're going to go through?

MR. WARREN HOLLAND: We've got other documents.

THE COURT: Can you give me a ball park how many, 14,000, 750?

MR. MICHAEL HOLLAND: I would say 50.

THE COURT: Fifty? Fifty.

MR. WAGNER: We'll probably have some objections.

THE COURT: You going to stay in Marion County for a long time? I'm just teasing.

Okay. Let's take a 15-minute break now. Let's take care of these documents, get them in their hands. We'll give them -- well, maybe if that's the case, then, I'm not sure they need to come back from lunch, do you?

MR. SHEFFLER: No.

MR. WARREN HOLLAND: Probably true, if we're not going to do --

THE COURT: Because the deposition you wanted is Heimann and Rogers and we need some time to go through those and then the 50 documents.

Okay. Let's take a 15-minute break now.

MR. OHLEMEYER: One more quick question, your Honor. The procedure for publishing these, how will I make my Rule 106 suggestion and at what point do I need to -- are we just going to pass these to the jury or give them to the jury or read them to them?

THE COURT: What is your 106 suggestions? Remind me what 106 is.

MR. OHLEMEYER: The rule of completeness. For example, on the one I'm

looking at here, you know, I think in all fairness that the jury should know that this is page 25 of this document. I would like a chance to either read that or put the page number on there or something like that.

The rest of them I don't know. If we're going to give them to the jury in their full form, I don't have a problem.

THE COURT: We're not going to give the jury this full form.

MR. OHLEMEYER: Correct. So under Rule 106, I want the jury to understand that this is page 25 of this document.

MR. WARREN HOLLAND: Your Honor, one thing we might do, too, is -- I mean we're not offering the whole document, so I have no problem saying this is one page. I am not representing it's an entire document. The short ones we could actually read to the jury and then pass, so that makes a little more sense, I guess. I'm not talking about anything over a page.

THE COURT: Let's take a recess,

because I don't have any problem with that either. As a matter of fact, my suggestion last night was to put like dotted lines or some way we can do it to define -- if you're citing something and you're finding less than the full text, how you cite that, something like that, but obviously we can do it some way that conveys that and that's appropriate, certainly, on a partial.

Let's take a 15-minute recess now and clean this up and go from there.

(Conclusion of bench conference.)

THE COURT: Before breaking for the lunch hour, there are certain documents that the Court has made rulings on as a result of the proceedings that occurred relative to the admission of documents, and you recall that the admission of documents and whether or not evidence is admissible or not is strictly controlled by rules of law and that's why my part in this proceeding is to do that, and we've done that.

What I plan to do is to take about a 10-

or 15-minute recess now, finalize those documents that are to be admitted into evidence as a result of the proceedings yesterday afternoon, and then bring you back into court and then we'll put those on the record and give those to you and then by that time, also, we'll have a plan for the rest of the day.

But before we break for lunch, I do want to put into your hands those documents that were admitted into evidence.

With that, the jury may rise, you may retire. We'll be in recess about 15 minutes.

(The trial proceedings recessed at 11:15 a.m., to reconvene at 11:33 a.m.)

(The following proceedings were conducted out of the presence of the jury.)

THE COURT: What I understand that we're going to do is bring the jury in, and I suppose I'll simply recite to them that at the close of business yesterday, plaintiffs had offered Exhibits 37 through 52 and that the Court had sustained objections to certain of the documents and had overruled the objections

to others, and that the Court has ruled that certain documents are admissible into evidence, and those documents are Plaintiff's 37, 43, and read a couple numbers and then give them copies of those documents, then recess for their purposes for the day.

We can take a break for lunch, come back and then work on -- plaintiff indicates they have about 50 documents and we can see if we can get through those and the depositions of Mr. Heimann and Dr. -- and Mr. Rogers.

Yes, sir.

MR. OHLEMEYER: I think, your Honor, it was actually through 54, 38 through 54, with 52 being --

THE COURT: Was it 54? You're exactly right. Yes, thank you. You're exactly right.

The reason I reviewed all my rulings at the end of the thing yesterday was so I could have it for this morning on the screen, but I can't write to the file and review the file at the same time, so whatever file I have on my

screen, the current writing goes to that file.

You're exactly right, I stand corrected, 37 through 54.

Is my understanding of how we're proceeding consistent with everyone else's understanding of what we're doing?

MR. OHLEMEYER: Correct, your Honor.

THE COURT: Okay. I want them to have an opportunity, I'm going to tell them to take a look at the documents, they're being offered now, and if they were to stay in the courtroom, we would sit here and watch them review the documents when they're distributed to them.

So whoever wants to go to lunch certainly is invited to do that. After they've had an opportunity to review the exhibits, though, if they want to go and they don't want to do that or they want to go back to work, whatever they want to do, they're free to do that.

(The jury was escorted into the courtroom at 11:35 a.m.)

THE COURT: The jury may be seated.

If you'll recall, at the adjournment hour yesterday, at least adjournment hour for you before we recessed and excused you, that there was offered into evidence Exhibits No. 37 through No. 54, and that yesterday afternoon the Court considered those documents and heard oral arguments from counsel as to the legal arguments about admissibility or exclusion of those documents.

The Court has ruled that the following documents are admitted into evidence in this cause.

For the record, those exhibits are Plaintiff's Exhibits No. 37 -- I'm sorry, Exhibit No. 37, Exhibit No. 43, Exhibit No. 45, Exhibit No. 47, Exhibit No. 49, Exhibit No. 50, Exhibit No. 51.

I'm assuming you've got copies of those?

MR. MICHAEL HOLLAND: Yes, we do.

THE COURT: Let's handle it this way. In reviewing the order of business with

counsel, there are some other matters relating to depositions and relating to the admission of another set of documents that we need to take up.

Because we're talking about rules of law, our rules require us to take those matters up outside your hearing since it is all rules of law. And so today we're going to recess in just a few moments, and during this next recess, Shelly, who is the jury bailiff today, will be given copies of the documents that I have just ruled that are admissible into evidence, and she will bring those to you in the jury room.

I want you to spend some time as you think appropriate or necessary to review the documents prior to going to lunch.

Normally, the normal process for this in handling documentary evidence in front of juries is to distribute the documents in court in the seat where you are now and then give you an opportunity to examine them as you sit there in your seat.

I don't know how many pages we're talking about in the documents we've got here, but I would guess it's, I don't know, 40, 50, 60 pages, and so rather than sit here and watch you look at these documents for the next whatever time seems to me not a very effective use of our time.

So we're going to do it a little differently in that we're going to recess and then while you're in the jury room and that way while you're drinking coffee or can get more comfortable, you can have the opportunity to review the documents.

Recall your preliminary instructions that normally I would admonish you that when exhibits would be given to you, that you're to examine the exhibits when they're distributed to you without discussion. Obviously, that admonition holds true now and through every document or piece of evidence or document that are given to you for your review and inclusion in your jury notebook.

So, we are going to do that, we're going

to take a recess, let you do that. Shelly will distribute the exhibits to you. Take, again, whatever time is necessary for you to review the documents. When you've all had some time to do that, then Shelly will escort you to lunch, and because, in my estimation, we will consume the remainder of the afternoon again with a discussion of documents and other matters that concern rules of evidence, the Court and counsel, and so after lunch you'll be free to go about your business, whatever you want to do, and spend the rest of the afternoon.

Because you're being allowed to separate, I'm required to remind you of your admonition not to discuss this case among yourselves or permit it to be discussed with you by anyone. Continue to avoid and protect yourself from exposure to media accounts of this trial or issues that are related in this case.

And with that, the jury may rise, you may retire. We'll be in recess until 9 a.m. Tuesday morning. Have a great weekend.

(The jury was excused at 11:40 a.m.)

MR. WAGNER: I have a thought or suggestion, probably a bad idea, but as your Honor now knows, the plaintiffs have served upon us a brand new designation of testimony of Richard Rogers' deposition that they want to read in. It came in to us last night via fax at around 8:47 p.m.

It contains a very extensive designation of testimony from the discovery deposition of Richard Rogers the plaintiffs want to use in their case in chief. A great deal of that information has never been designated by anybody in this case at any time.

But more to the point, your Honor entered a pretrial order which required the parties to designate portions of depositions to be offered on or before January 17, 1995.

Here we are in the middle of the trial and we've got a multiple page designation of numerous parts of Richard Rogers' deposition.

So my suggestion is, your Honor, that, first of all, the defendants are objecting to

these designations because they contravene your Honor's pretrial order, they obviously are out of time, they're not timely. And before we spend hours trying to analyze this testimony, formulating objections, the suggestion is that your Honor rule upon our objection to the fact that these are not filed in time. Then if they're knocked out, of course, then that moots the rest of the objections that we may have to this testimony.

MR. WARREN HOLLAND: Your Honor, as he said, it wasn't a good idea.

MR. MICHAEL HOLLAND: When we made our initial designation, we indicated that --

THE COURT: Let me suggest this. There's an objection as to plaintiff's designation for timeliness. I'm as concerned about why it's coming in the middle of trial as you are. After lunch I will expect a complete explanation from the plaintiffs about why it's coming late, and I assume I'll get that.

Let's just go ahead and take it up after

lunch.

MR. WAGNER: Thank you, Judge.

THE COURT: I would like to see you back at one o'clock. Let's resume at one o'clock and we'll take up that matter of timeliness and other matters.

(The trial proceedings recessed at 11:44 a.m., to reconvene at 1:00 p.m.)